Attorney Docket No.

Patent 033303-052

# UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Commissioner for Patents

Prem S. Paul et al.

Application No.: 10/618,779

Filing Date:

July 15, 2003

Group Art Unit: 1642

Examiner: Unassigned

Confirmation No.: 5988

Title: POLYNUCLEIC ACIDS ISOLATED FROM A PORCINE REPORDUCTIVE AND RESPIRATORY

SYNDROM VIRUS (PRRSV), AND PROTEINS ENCODED BY THE POLYNUCLEIC ACIDS

# FIRST INFORMATION DISCLOSURE STATEMENT TRANSMITTAL LETTER

P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is a FIRST Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

D-1449 for the above-identified patent application.

No additional fee for submission of an IDS is required.

The fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.

A statement under 37 C.F.R. § 1.97(e) is also enclosed.

A statement under 37 C.F.R. § 1.97(e), and the fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) are also enclosed.

Charge \_\_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.

A check in the amount of \_\_\_\_\_\_ is enclosed for the fee due.

Charge to credit card. Form PTO-2038 is attached.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

P.O. Box 1404 Alexandria, Virginia 22313-1404 (703) 836-6620

Date: December 28, 2004

Sharon E. Crane, Ph.D.

Registration No. 36,113



### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re P	atent Application of	)	
Prem	S. Paul et al.	)	Group Art Unit: 1642
Applic	ation No.: 10/618,779	)	Examiner: Unassigned
Filed:	July 15, 2003	)	Confirmation No.: 5988
For:	POLYNUCLEIC ACIDS ISOLATED FROM A PORCINE REPORDUCTIVE AND RESPIRATORY SYNDROM VIRUS (PRRSV), AND PROTEINS ENCODED BY THE POLYNUCLEIC ACIDS	) ) ) )	

### FIRST INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

All of the listed documents were previously made of record in prior Application Serial Nos. 08/301,435 (now US Patent No. 6,592,873), filed September 1, 1994 and 08/131,625 (now US Patent No. 5,695,766), filed October 5, 1993, upon which Applicants rely for the benefits provided in 35 U.S.C. § 120. In accordance with 37 C.F.R. § 1.98, no copies the listed documents are enclosed.

The documents are being submitted within three (3) months of the filing or entry of the national stage of this application or before the first Office Action on the merits, whichever is later. Since these documents are being filed within the time period set forth in 37 C.F.R. § 1.97(b), no fee or statement is required.

Information Disclosure Statement
Application No. 10/618,779
Attorney's Docket No. 033303-052
Page 2

To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date December 28, 2004

Sharon E. Crane, Ph.D. Registration No. 36,113

P.O. Box 1404 Alexandria, Virginia 22313-1404 (703) 836-6620

			44404	777	. 0	4 4 4 6 5	1 TT
ubst.tuto	(U)	uam	14454	PIU	•	1445	21

## **FIRST** INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known **Application Number** 10/618,779 Filing Date July 15, 2003 First Named Inventor Prem S. Paul et al. Examiner Name Unassigned **Attorney Docket Number** 033303-052

(use as many sheets as necessary)

UEC 2 8 2004 E			U.S. PATENT DOCUMENTS	
Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	5,213,795	Α	Carlson et al.	05-00-1993
	5,419,907	Α	Paul et al.	05-00-1995
	5,476,778	Α	Chladek et al.	12-00-1995
	5,510,258	Α	Sanderson et al.	04-00-1996
	5,587,164	Α	Sanderson et al.	12-00-1996
	5,597,721	Α	Brun et al.	01-00-1997
	5,620,691	Α	Wensvoort et al.	04-00-1997
	5,674,500	Α	Peeters et al.	10-00-1997
	5,677,429	Α	Benfield	10-00-1997
	5,683,865	Α	Collins et al.	11-00-1997
	5,695,766	Α	Paul et al.	12-00-1997
	5,698,203	Α	Visser et al.	12-00-1997
	5,789,388	Α	Visser et al.	08-00-1998
	5,840,563	A	Chladek et al.	11-00-1998
	5,846,805	Α	Collins et al.	12-00-1998
	5,858,729	Α	Van Woensel et al.	01-00-1999
	5,866,401	Α	Hesse	02-00-1999
	5,888,513	Α	Plana Duran et al	03-00-1999
	5,910,310	Α	Heinen et al.	06-00-1999
	5,925,359	Α	Van Woensel et al.	07-00-1999
	5,976,537	Α	Mengeling et al.	11-00-1999
	5,989,563	Α	Chladek et al.	11-00-1999
	5,998,601	Α	Murtaugh et al.	12-00-1999
	6,001,370	Α	Burch et al.	12-00-1999
	6,015,663	Α	Wesley et al.	01-00-2000
	6,380,376	B1	Paul et al.	04-00-2002
	6,592,873	B1	Paul et al.	07-15-2003

	FOREIGN PATENT DOCUMENTS										
	STATUS										
Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec
	2076744		Canada	08-00-1992							
	0 595 436	A2	Europe	05-00-1994							
	2282811		Great Britain	04-00-1995		I					
	WO 92/21375		WO	12-00-1992							
	WO 93/03760		WO	03-00-1993							
	WO 93/06211		WO	04-00-1993							
	WO 93/07898	1777	WO	04-00-1993							
	WO 94/18311		WO	08-00-1994							
	WO 95/31550		WO	11-00-1995							
	WO 96/04010		WO	02-00-1996							
	90 06619		WO	03-00-1996							
	WO 96/40932		WO	12-00-1996							

Examiner
Signature

Date
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

ubstitute for form 1449A PTO & 1449B PTO				Complete if Known			
	F	IRST		Application Number	10/618,779		
INFO	RMATIC	N DIS	SCLOSURE	Filing Date	July 15, 2003		
STAT	EMENT	BY A	PPLICANT	First Named Inventor	Prem S. Paul et al.		
	(use as many	sheets as r	necessary)	Examiner Name	Unassigned		
Sheet	2	of	7	Attorney Docket Number	033303-052		

	NON-PATENT LITERATURE DOCUMENTS
Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	ANONYMOUS, The Veterinary Record, Feb. 1, 1992, pp. 87-89, vol. 130
	ANONYMOUS, The Veterinary Record, Oct. 26, 1991, p. 370, vol. 129
	ANONYMOUS, The Veterinary Record, Jun. 1, 1991, p. 511, vol. 128
	ANONYMOUS, The Veterinary Record, Jun. 8, 1991, p. 536, vol. 128
	ANONYMOUS, The Veterinary Record, Jun. 22, 1991, p. 578, vol. 128
	Abstract Nos. 218-222, p. 43, Abstracts of Conf. of Research Workers in Animal Diseases, Chicago, IL (1983)
	"'Mystery Pig Disease' Studies Needed", Animal Pharm., vol. 215, p. 12, publ. date: Nov. 2, 1990, Theta Reports, New York, NY
	"Mystery Virus in German Pig Herds", Animal Pharm., vol. 220, p. 8, publ. date: Jan. 25, 1991, Theta Reports, New York, NY
	"'Mystery Pig Disease' Still Unidentified", Animal Pharm., vol. 223, p. 3, publ. date: Mar. 8, 1991, Theta Reports, New York, NY
	"Dutch Scientists Confirm Porcine Reproductive and Respiratory Syndrome (PRRS) Agent is a Virus", Animal Pharm., vol. 238, p. 6, publ. date: Oct. 25, 1991, Theta Reports, New York, NY
	"Cyanamid Reports on Isolation of Porcine Reproductive and Respiratory Syndrome (PRRS) Virus", Animal Pharm., vol. 238, p. 20, publ. date: Oct. 25, 1991, Theta Reports, New York, NY
	"Pig Disease Mystery Solved by FRG Scientists", Animal Pharm., vol. 240, p. 7, publ. date: Nov. 22, 1991. Theta Reports, New York, NY
	"Bayer Prepare Cuts Mortality in PRRS Herds", Animal Pharm., vol. 240, p. 22, publ. date: Nov. 22, 1991, Theta Reports, New York, NY
	"Porcine Epidemic and Respiratory Syndrome (PEARS) Virus Isolated in France", Animal Pharm., vol. 244, p. 7, publ. date: Jan. 24, 1992, Theta Reports, New York, NY
	"No Immediate Prospect of a Porcine and Respiratory Syndrome (PEARS) Vaccine", Animal Pharm., vol. 244, p. 25, publ. date: Jan. 24, 1992, Theta Reports, New York, NY
	"US Market for Animal Health Products," Animal Pharm., vol. 247, Supplement, publ. date: Mar. 6, 1992, Theta Reports, New York, NY
	"Porcine Reproductive and Respiratory Syndrome (PRRS) Antibody Test Developed in France", Animal Pharm., vol. 253, p. 5, publ. date: Jun. 5, 1992, Theta Reports, New York, NY
	"IDEXX to Develop Porcine Reproductive and Respiratory Syndrome (PRRS) Diagnostic", Animal Pharm. vol. 257, p. 20, publ. date: Jul. 31, 1992, Theta Reports, New York, NY
	"Porcine Reproductive and Respiratory Syndrome (PRRS) Widespread in US Herds", Animal Pharm., vol. 264, p. 11, publ. date: Nov. 13, 1992
	"Porcine Reproductive and Respiratory Syndrome (PRRS) Virus Identified in Japan", Animal Pharm., vol. 283, p. 11, publ. date: Aug. 27, 1993, Theta Reports, New York, NY
	"Dutch Team Isolates Mystery Pig Disease Agent", Animal Pharm., vol. 230, p. 21, publ. date: Jun. 21, 1991, Theta Reports, New York, NY
	"Porcine Reproductive and Respiratory Syndrome (PRRS): an Appraisal of Current Research", Animal Pharm., vol. 284, p. 20, publ. date: Sep. 10, 1993, Theta Reports, New York, NY
	Arch. Virol., vol. 133, pp. 477-483 (1993)
	BAUTISTA ET AL, American Association of Swine Practitioners Newletter, 4:32 (1992)
Examiner	Date

Examiner
Signature

Date
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Substitute for form 1449A/PTO & 1449B/PTO				Complete if Known			
	1	FIRS	T	<b>Application Number</b>	10/618,779		
INFORMATION DISCLOSURE				Filing Date	July 15, 2003		
STATEMENT BY APPLICANT				First Named Inventor	Prem S. Paul et al.		
(use as many sheets as necessary)				Examiner Name	Unassigned		
Sheet	3	of	7	Attorney Docket Number	033303-052		

BAUTISTA ET AL, "Serologic Survey for Lelystad and VR-2332 Strains of Porcine Respiratory and Reproductive Syndrome (PRRS) Virus in US Swine Herds," J. Vet. Diagn. Invest., (1993), pp. :612-614, Vol. 5
BAUTISTA ET AL, "Comparison of Porcine Alveolar Macrophages and CL 2621 for the Detection of Porcine Reproductive and Respiratory Syndrome (PRRS) Virus and Anti-PRRS Antibody," J. Vet. Diagn. Invest., (1993), pp. 163-165, Vol. 5
BENFIELD ET AL, J. Vet. Diagn. Invest., (1992), pp. 127-133, Vol. 4
BILADEAU ET AL., The Veterinary Record, Aug. 3, 1991, pp. 102-103, vol. 129
BLAHA, Proc. Am. Assoc. Swine Practitioners, (1993), pp. 313-315
BURGESS ET AL., "Possible Dissociation of the Heparin-binding and Mitogenic Activities of Heparin-binding (Acidic Fibroblast) Growth Factor-1 from its Receptor-binding Activities by Site-directed Mutagenesis of a Single Lysine Residue", J. Cell. Biol., 1990, pp. 2129-2138, vol. 111, The Rockefeller University Press, USA
CAFRUNY ET AL., "Antibody response of mice to lactate dehydrogenase-elevating virus during infection and immunization with inactivated virus", Virus Research, 1986, pp. 357-375, vol. 5, Elsevier Science Publishers B.V., The Netherlands
CHEN, J. Gen. Virol., (1993), pp. 643-660, Vol. 74
CHRISTIANSON ET AL, "Experimental Reproduction of Swine Infertility and Respiratory Syndrome in Pregnant Sows," Am. J. Vet. Res., (Apr. 1992) pp. 485-488, Vol. 53, No. 4
CHRISTIANSON ET AL, Swine Health & Production, (1994), pp. 10-28, vol. 1, No. 2
COLLINS ET AL, Proc., Minnesota Swine Conference for Veterinarians, (1991), pp. 200-205
COLLINS ET AL, J. Vet. Diagn. Invest., (1992), pp. 117-126, Vol. 4
COLLINS ET AL, "Pathenogenisis of PRRS," The Allen D. Leman Swine Conference, (1993) p. 47-48
CONZELMANN ET AL, "Molecular Characterization of Porcine Reproductive and Respiratory syndrome Virus, a Member of the Arterivirus Group," Virology, (March 1993), pp. 329-339, Vol. 193, No. 1
DALZIEL ET AL, J. Virol., (1986), pp. 463-471, Vol. 59
DEA ET AL., "Antigenic Variant of Swine Influenza Virus Causing Proliferative and Necrotizing Pneumonia in Pigs", J. Vet. Diagn. Invest., 1992, pp. 380-392, vol. 4, American Assoc. of Vet. Lab. Diagnosticians, Columbia, MO
DEN BOON ET AL, J. Virol., (1990),.pp. 2910-2920, Vol. 65
DE VRIES ET AL., "All subgenomic mRNAs of equine arteritis virus contain a common leader sequence", Nucleic Acids Res., 1990, pp. 3241-3247, vol. 18, Oxford University Press, United Kingdom.
DE VRIES ET AL., "Structural Proteins of Equine Arteritis Virus", J. Virol., 1992, pp. 6294-6303, vol. 66, ASM Press, Washington, DC.
DOMINGO ET AL., "New observations on antigenic diversification of RNA viruses. Antigenic variation is not dependent on immune selection", J. Gen. Virology, 1993, pp. 2039-2045, vol. 74, Society of General Microbiology, Great Britain
ELAZHARY, The Veterinary Record, Nov. 30, 1991, pp. 495-496, Vol. 129
ELLIS, RONALD W., "New Technologies for Making Vaccines", Vaccines, Plotkin et al. (Eds.) W.B. Saunders Company, (1988), pp. 568-575, Chapter 29, USA

Examiner	Date
Signature	Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Substitute for form 1449A/PTO & 1449B/PTO				Con	nplete if Known
	F	FIRS	T	<b>Application Number</b>	10/618,779
INFO	RMATIC	I NC	DISCLOSURE	Filing Date	July 15, 2003
STAT	EMEN1	ГВ	APPLICANT	First Named Inventor	Prem S. Paul et al.
	(use as man	v sheets	as necessary)	Examiner Name	Unassigned
Sheet	4	of	7	Attorney Docket Number	033303-052

·	FAARERO ET AL IIDIGUEL Donde Datum Ture Faulter Datum of Located Datum					
	FAABERG ET AL., "Disulfide Bonds Between Two Envelope Proteins of Lactate Dehydrogenase- Elevating Virus Are Essential for Viral Infectivity", J. Virol., 1995, pp. 613-617, vol. 69, ASM Press,					
	Washington, DC FISCUS ET AL, J. Virol., (1987), pp. 2607-2613, Vol. 61					
	FLEMING ET AL, J. Virol., (1986), pp. 869-875, Vol. 58					
	GIRARD ET AL., "Experimentally Induced Porcine Proliferative and Necrotising Pneumonia With an Influenza A Virus", The Veterinary Record, 1992, pp. 206-207, vol. 130, British Veterinary Assoc., London, UK					
	GODENY ET AL, Virology, (1993), pp. 585-596, Vol. 194					
	GODNEY ET AL, Virology, pp. 768-771, Vol. 177					
	SAGAR GOYAL, "Porcine Reproductive and Respiratory Syndrome," J. Vet. Diagn. Invest., (1993), pp. 656-664, Vol. 5					
	HAHN ET AL, Proc. Natl. Acad. Sci. USA, (1988), pp. 5997-6001, Vol. 85					
	HALBUR ET AL, Proc. Central Veterinary Conference., (1993), pp. 750-759					
	HALBUR ET AL, Proc. Am. Assoc. Swine Pract., (1993), pp. 343-350					
	HILL ET AL, Proceedings Mystery Swine Disease Committee Meeting, Denver, Colorado., (1990), p. 29-31					
	HILL ET AL, Am. Assoc. Swine Practitioner Newsletter, (1992), pp. 47, Vol. 4					
	HOOPER ET AL, J. Vet. Diagn. Invest., (1994), pp. 13-15, Vol. 6					
	HANSOO JOO, "PRRS: Diagnosis," Proc., Allen D. Leman Swine Conf., (1993), pp. 53-55, vol. 20, Vet. Cont. Ed. And Ext., Univ. of Minnesota					
	KAPUR ET AL, "Genetic Variation in Porcine Reproductive and Respiratory Syndrome Virus Isolates in the Midwestern United States", J. Gen. Virol., 1996, pp. 1271-1276, vol. 77, Society of General Microbiology, Great Britain					
	KEFFABER, Am. Assoc. Swine Practitioner Newsletter, (1989), pp. 1-9, Vol. 1					
	H.S. KIM ET AL, "Enhanced Replication of Porcine Reproductive and Respiratory Syndrome (PRRS) Virus in a Homogeneous Subpopulation of MA-104 Cell Line,", Arch. Virol., (1993), pp. 477-483, Vol. 133					
	KÖHLER ET AL, Nature, (1975), pp. 495-497, Vol. 256					
	KOONIN ET AL, Critical Rev. Biochem. Mol. Biol., (1993), pp. 375-430, Vol. 28					
	KUCHLER, Biochemical Methods in Cell Culture and Virology, (1977), p. 4-10, Dowden, Hutchinson & Ross, Inc. (Stroudsburg, PA)					
	KUO ET AL, "A Nested Set of Eight RNAs Is Formed in Macrophages Infected with Lactate Dehydrogenase-Elevating Virus", J. Virol., 1991, pp. 5118-5123, vol. 65, ASM Press, Washington, DC					
	KUO ET AL, Virus Res., (1992), pp. 55-72, Vol. 23					
	LAI, Annu. Rev. Microbiol., (1990), pp. 303-333, Vol. 44					
	LAI, Microbiol. Rev., (1992), pp. 61-79, Vol. 56					
	LANZA ET AL, "Pathogenicity of Concurrent Infection of Pigs With Porcine Respiratory Coronavirus and Swine Influenza", Res. Vet. Sci., 1992, pp. 309-314, vol. 53					
Examiner Signature	Date Considered					

Signature Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

# FIRST INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known

Application Number 10/618,779

Filing Date July 15, 2003

First Named Inventor Prem S. Paul et al.

Examiner Name Unassigned

Attorney Docket Number 033303-052

Sheet 5 of

Substitute for form 1449A/PTO & 1449B/PTO

	LAUDE ET AL, Vet. Res., 24:125-150 (1993)
<b> </b>	LAZAD ET AL STransferming County Frater plabs Mutation of Associa AZ and Lausing AS Doculto
	LAZAR ET AL, "Transforming Growth Factor .alpha.: Mutation of Aspartic Acid 47 and Leucine 48 Results in Different Biological Activities", Mol. Cell. Biol., 1988, pp. 1247-1252, vol. 8, ASM Press, Washington, DC
	LOULA, Agri-Practice., (1991), pp. 23-34, Vol.12
	MAGER ET AL, Can. J. Vet. Res.,(1993), pp. 300-304, Vol. 57
	MARDASSI ET AL, Abstract. Conf. Res. Workers in Animal Dis., (1993), p. 43 Chicago, Illinois
	HELMI MARDASSI ETAL, "Identification of Major Differences in the Nucleocapsid Protein Genes of a
	Quebec Strain and European Strains of Porcine Reproductive and Respiratory Syndrome Virus," Journal of General Virology, (1994), pp. 681-685, vol. 75
	MELDRUM, K., The Veterinary Record, Mar. 2, 1991, p. 213, vol. 128
	MENG, J. Vet. Diagn. Invest., (1993), pp. 254-258, Vol. 5
	XIANG-JIN MENG ET AL, "Molecular Cloning and Nucleotide Sequencing of the 3'-Terminal Genomic RNA of the Porcine Reproductive and Respiratory Syndrome Virus," Journal of General Virology, (1994), pp. 1795-1801, vol. 75
	XJ. MENG ET AL., Arch Virol. (1995), pp. 745-55, Vol. 140, Springer-Verlag, Austria
-	XJ. MENG ET AL., J. Gen. Virol. (1995), pp. 3181-88, Vol. 76, Society of General Microbiology, Great Britain
	MEREDITH, "Review of Porcine Reproductive and Respiratory Disease Syndrome," Pig Disease Information Centre, (1992), Department of Veterinary Medicine, Madingley Road, Cambridge CB3 OES, U.K.
	JANNEKE J.M. MEULENBERG ET AL., "Lelystad Virus, The Causative Agent of Porcine Epidemic Abortion and Respiratory Syndrome (PEARS), Is Related To LDV and EAV", Virology, 1993, pp. 62-72, vol. 192, No. 1
	MEULENBERG ET AL., "Subgenomic RNAs of Lelystad virus contain a conserved leader-body junction sequence", J. Gen. Virology, 1993, pp. 1697-1701, vol. 74, Society of General Microbiology, Great Britain MEULENBERG ET AL., "Characterization of Proteins Encoded by ORFs 2 to 7 of Lelystad Virus",
	Virology, 1995, pp. 155-163, vol. 206, Academic Press, Inc., Academic Press, USA  TOM MOLITOR, "Immune Responses to PRRS Virus", The Allen D. Leman Swine Conf., 1993, pp. 49-50
	MORIN ET AL., "Severe Proliferative and Necrotizing Pneumonia in Pigs: a Newly Recognized Disease," Can. Vet. J., 1990, pp. 837-839, vol. 31, Canadian Veterinary Medical Assoc., Ontario, Canada
	MORIN ET AL., The Veterinary Record, Oct. 19, 1991, pp. 367-368, vol. 129
	MOROZOV ET AL., "Sequence Analysis of Open Reading Frames (ORFs) 2 to 4 of a U.S. Isolate of Porcine Reproductive and Respiratory Syndrome Virus", Arch. Virology, 1995, pp. 1313-1319, vol. 140, Springer-Verlag, Austria
	MORRISON ET AL., "Serologic Evidence Incriminating a Recently Isolated Virus (ATCC VR-2332) as the Cause of Swine Infertility and Respiratory Syndrome (SIRS)," J. Vet. Diagn. Invest., 1992, pp. 186-188, vol. 4, American Assoc. of Vet. Lab. Diagnosticians, Columbia, MO
	SAMIR MOUNIR ET AL, "Expression and Characterization of PRRSV Envelope and ns4 Proteins," American Society for Virology, Annual Meeting, Jul. 9-12, 1994, Madison, WI
	MURTAUGH, The Allen D. Leman Swine Conference, (1993), pp. 43-45, Published by The Veterinary Continuing Ed. And Extension. Univ. of Minn.
	NELSON ET AL, J. Clin. Microbiol., (1993), pp. 3184-3189, Vol. 31

$\overline{}$	 <del></del>	
l Examiner I	Date	1
	1 2010	1
Signature	Considered	
Signature	Considered	

#### Substitute for form 1449A/PTO & 1449B.PTO Complete if Known **Application Number** 10/618,779 **FIRST INFORMATION DISCLOSURE Filing Date** July 15, 2003 STATEMENT BY APPLICANT **First Named Inventor** Prem S. Paul et al. **Examiner Name** Unassigned (use as many sheets as necessary) Sheet of **Attorney Docket Number** 033303-052

:	PARKER ET AL, Virology., (1989), pp. 664-673, Vol. 173
	PATON ET AL, Vet. Rec., (1991), pp. 617, Vol. 128
	PATON ET AL., "Isolation of a Lelystad Virus-like Agent From British Pigs and Scanning Electror Microscopy of Infected Macrophages," Vet. Microbiol., 1992, pp. 195-201, vol. 33, Elsevier Science Publishers B.V., Amsterdam
	PREM PAUL, Etiology. Prevalence and Prevention of Proliferative Interstitial Pneumonia in Swine," USDA Abstracts, Start Date: Jan. 1, 1992, Dialog Computer Database
	PAUL ET AL, "Porcine Reproductive and Respiratory Syndrome: An Overview," J. Clin. Vet. Med., (1993) pp. 19-28, Vol. 11, with English translation
	PLAGEMANN, Proc. Am. Assoc. Swine Practitioners., (1992), pp. 8-15, Vol. 4
	PLAGEMANN AND MOENNIG, Adv. Virus Res., (1992), pp. 99-192, Vol. 41
	PLANA ET AL., "Porcine Epidemic Abortion and Respiratory Syndrome (Mystery Swine Disease), Isolation in Spain of the Causative Agent and Experimental Reproduction of the Disease", Vet. Microbiol., 1992, pp 203-211, vol. 33, Elsevier Science Publishers B.V., The Netherlands
·	PLOTKIN ET AL., "New Technologies for Making Vaccines", Vaccines, 1988, see p. 571, published by W.B. Saunders Co. (Phil.)
	POL ET AL, Veterinary Quarterly, (1991), pp. 137-143, Vol. 13
	RASSCHAERT ET AL, J. Gen. Virol., (1990), pp. 2599-2607, Vol. 71
	SIRINARUMITR ET AL., A pneumo-viruloent United States isolate of porcine reproductive and respiratory syndrome virus induces apoptosis in bystander cells both in vitro and in vivo, Journal of General Virology, 1998, pp. 2989-2995, vol. 79, Society of General Microbiology, Great Britain
	SNIJDER ET AL, Nucleic Acid Res., (1990), pp. 4535-4542, Vol. 18
	SPAAN ET AL, J. Gen. Virol., (1988), pp. 2939-2952, Vol. 69
	G.W. STEVENSON ET AL, "Endemic Porcine Reproductive and Respiratory Syndrome Virus Infection of Nursery Pigs in Two Herds Swine Without Current Reproductive Failure," J. Vet. Diagn. Invest., (1993) pp. 432-434, Vol. 5
	SWENSON ET AL., "Porcine Reproductive and Respiratory Syndrome Virus in Experimentally Infected Boars: Isolation From Semen", Proc Am Assoc Swine Pract, 1993, pp. 719-720, American Assoc. of Swine Veterinarians, Perry, IA.
	SWENSON ET AL., "Porcine Reproductive and Respiratory Syndrome Virus in Experimentally Infected Boars: Isolation From Semen", Proc Ann Meeting Livestock Conservation Institute, 1993, pp. 115-116
	SWENSON ET AL., JAVMA, (1994), pp. 1943-1948, Vol. 204
	TIZARD, An Introduction to Vet Immunology, published in 1982, see pp. 41-43, W.B. Saunders Co. (Phil)
	VAN ALSTINE ET AL, Swine Health & Production, (1993), pp. 24-28, vol. 1, No. 4
	ERIC VAUGHN ET AL, "Three New Isolates of Porcine Respiratory Coronavirus with Various Pathogenicities and Spike(s) Gene Deletions," Journal of Clinical Microbiology, (Jul. 1994), pp. 1809-1812, vol. 32, No. 7
	WEILAND ET AL., "Monoclonal antibodies to the GP.sub.5 of porcine reproductive and respiratory syndrome virus are more effective in virus neutralization than monoclonal antibodies to the GP.sub.4 ", Veterinary Microbiology, 1999, pp. 171-186, vol. 66, Elsevier Science B.V., The Netherlands
	WENSVOORT ET AL., The Veterinary Record, Jun. 15, 1991, p. 574, vol. 128
Examiner	Date

Signature

Signature

Considered

Substitute for form 1449A/PTO & 1449B/PTO				Complete if Known	
	F	FIRS	T	Application Number	10/618,779
INFORMATION DISCLOSURE				Filing Date	July 15, 2003
STATEMENT BY APPLICANT (use as many sheets as necessary)			APPLICANT	First Named Inventor	Prem S. Paul et al.
			as necessary)	Examiner Name .	Unassigned
Sheet	7	Of	7	Attorney Docket Number	033303-052

	WENSVOORT ET AL, "Mystery Swine Disease in the Netherlands: The Isolation of Lelystad Virus," Vet.
	Quarterly, (July 1991), pp. 121-130, Vol. 13, No. 3
	WENSVOORT ET AL, J. Vet. Diagn. Invest.,(1992), pp. 134-138, Vol. 4
	G. WENSVOORT, "Lelystad Virus and the Porcine Epidemic Abortion and Respiratory syndrome," Vet. Res., (1993), pp. 117-124, Vol. 24
	R.W. WILLS ET AL., "Transmission of PRRS Virus by Contact vs Airborne Exposures", Final Report of a grant, 1995, pp. 103-108, National Pork Producers Council, Des Moines, Iowa
	ZIMMERMAN, "Mystery Swine Disease," USDA Abstracts, Dialog Computer Database, Jul. 1, 1990, pp. 501-504
	ZIMMERMAN ET AL., "Susceptibility of Four Avian Species to PRRS Virus", Proc Ann Meeting Livestock Conservation Institute, 1993, pp. 107-108
	J. ZIMMERMAN ET AL., "Transmission of PRRS Virus", The Allen D. Leman Swine Conf., 1993, pp. 51-52
	J.J. ZIMMERMAN, "Airborne Transmission of Porcine Reproductive and Respiratory Syndrome (PRRS/SIRS/MSD) Virus," USDA Abstracts, Dialog Computer Database, Start Date: July 1, 1993
	PCT International Search Report for International Appln. No. PCT/US95/10904
L	

Examiner	Date	
Signature	Considered	